

Irondale & Port Hadlock UGA

**Preliminary
Buildout Analysis**

March 4 , 2004

Prepared By:

**Mark Personius, AICP
Growth Management Consultant**

Introduction

This analysis seeks to determine the gross residential population “buildout” capacity of the Irondale & Port Hadlock UGA. Its purpose is to ascertain the ability of the UGA (in both its current [year 2002] “adopted” state and as may be suggested for revision by the UGA Task Force) to accommodate the 2004-2024 projected 20-year population allocation. The UGA’s estimated population is 2,553 based on the 2000 U.S. Census.

The new 20-year population allocation for the UGA is 2,353 persons. This new allocation is based on updated Jefferson County overall population projections prepared by the Washington State Office of Financial Management (OFM) in 2002 (after adoption of the initial UGA boundary and land use designations) and adopted by Jefferson County in 2003. The new allocation must be incorporated into the 2004 Jefferson County Comprehensive Plan Update per RCW 36.70A.130(1)(a).

Based on 100% of the existing population and future projected growth, the UGA must be able to accommodate a minimum of 4,906 persons by 2024. Growth Management Hearings Boards have also ruled that jurisdictions may allocate up to 25% additional residential capacity (beyond projected demand) within UGAs so as not to artificially constrict the supply of land to the point where rising land costs adversely affect housing affordability. Factoring in the 125% UGA sizing limitation means that the UGA should be sized and densities assigned to accommodate an approximate 20-year minimum and maximum population range of 4,906-6,133 persons, respectively.

Buildout Capacity Methodology

Population buildout capacity analysis essentially seeks to ensure a balance between the population “demand” over a given period (in this case 20 years) with an adequate “supply” of residential land within the UGA to accommodate that expected growth. A number of variables and assumptions can affect that equation and must be taken into account including proposed zoning designations and residential densities for single family and multi family zoned parcels within those designations. Another important variable in determining an accurate land supply is to consider “development reduction factors”. These include consideration of environmentally sensitive areas (called critical areas under the GMA), and other areas generally not available for subsequent residential development for a whole host of reasons, including lands set aside for roads, parks and open space, storm water treatment, utilities and land otherwise held off the development market by the choice of the property owner.

Updated parcel analysis was conducted by the Jefferson County Department of Information Services in December 2003 using Geographic Information Systems (GIS) technology to determine total net acres (zoned land minus external public road rights-of-way and water features) within the current UGA boundary. The parcel data was collected from Assessors Office data files. The “zones” correspond to the land designations

identified in the final 2002 Comprehensive Plan amendments that adopted the UGA. See Table 1 below. The figures in Table 1 include both developed and undeveloped lands.

Table 1
Irondale & Port Hadlock UGA
Land Use

Designation	Land Use (Net Acres)
New Commercial	91
Existing Commercial	131
Light Industrial	24
Park and Open Space	46
Public/Quasi-Public	37
Single Family Residential	700
Multi-Family Residential	28
<i>Total</i>	<i>1,057</i>

Source: Jefferson County Information Services

The “buildout” analysis seeks to identify the *total* residential development capacity of the UGA based on assigned densities and does not differentiate between developed and undeveloped residential designated parcels.

Several assumptions should be made clear as to the methodology:

1. The methodology assumes residential development and redevelopment will occur to the density stated in the single family and multi family residential zones only. The methodology assumes no residential capacity within the existing and new designated commercial zones. Densities in the single family residential zone are assumed to occur at an average density of 3.5 dwelling units per acre¹. This assumes that all single family designated parcels are located outside the planned 20-year sewer service boundary and could be accommodated by on-site septic systems consistent with the maximum density allowed under current Jefferson County regulations.

For the purposes of this buildout capacity analysis, all multi family designated parcels are assumed to develop or redevelop at the maximum density of 24 units

¹ *On-Site Sewer Code (JCC 8.15) allows minimum 12,500 s.f. lot for on-site septic systems with waivers possible to approximately minimum 7,500 s.f. However Code does not allow waivers less than 12,500 s.f. for lots within Critical Aquifer Recharge Areas. Therefore standard density in the ULDR zone (inside CARAs and outside of 20-year Sewer Service Area) is approximately 3.5 du's/acre. Standard density of 4 du's/acre in the ULDR zone (outside CARAs and outside of planned Sewer Service Area) may be achieved only by compliance with the waiver provisions of the On-Site Septic Code. Maximum density of 6 du's/acre in the ULDR only achievable by connection to sanitary sewer(allowed within the Optional Sewer Service Area Overlay)*

per acre as suggested in the Preliminary Implementing UGA Regulations. Except for those parcels identified as Moderate Density Residential on the Proposed Zoning Map which are assumed to develop or redevelop at a maximum density of 14 units per acre as suggested in the Preliminary Implementing UGA Regulation (for the purposes of this analysis only).

2. The methodology assumes a series of “reduction factors” to account for land not available for development (i.e., a 32.5% reduction factor is applied to all residential acreage to account for land used for internal roads, utilities, parks and open space and critical areas such as wetlands and stream corridors—this reduction factor includes an assumed 15% market factor to account for properties held off the development market for any “market-related” reason (e.g., due to encumbrances, title disputes, property owner discretion, etc.). This is a factor allowed by the Western Washington Growth Management Hearings Board as a “reasonable” measure in determining land use capacities for UGAs. This reduction factor is the same factor stipulated in the *Special Study* for determining urban land use capacities in the Port Townsend UGA. In addition, known UGA parcels either in public ownership or likely to be utilized for public purposes that were zoned single-family in the 2002 adopted UGA (comprising 35 acres) were subtracted from the available net residential land supply.

UGA Buildout Analysis by Scenario

Scenario I **(Existing 2002 UGA)**

This analysis is based on the existing UGA boundary and land use designations adopted in year 2002 compared to the updated 2003 20-year population growth allocation for the UGA.

Single Family Designation

Step One

Single Family Acres (665²) - Development Reduction Factor (0.325) = 449 Acres

Step Two

Single Family Net Acres (449) X Maximum Density (3.5 units/acre) = 1,572 Dwelling Units

² 700 Acres (see Table 1 [SF land supply]) minus 25 acres (owned by State of WA but zoned residential) minus 10 acres (proposed wastewater treatment site and facilities zoned residential) = 665 acres total SF residential land supply

Step Three

Single Family Dwelling Units (1,572) X Average Household Size (2.5³) = 3,930 Persons

Multi Family Designation

Step Four

Multi Family Acres (28⁴) - Development Reduction Factor (0.325) = 19 Acres

Step Five

Multi Family Net Acres (19) X Maximum Density (24 units/acre) = 456 Dwelling Units

Step Six

Multi Family Dwelling Units (456) X Average Household Size (2.0⁵) = 912 Persons

Step Seven

Single Family Pop. Capacity (3,930) + Multi Family Pop. Capacity (912) =

Total Existing UGA Residential Population Capacity (4,842 Persons)

The Scenario I analysis indicates a 1% shortfall (or approximately 64 persons) in the theoretical maximum population capacity (4,842 - 4,906 = -64) to accommodate the new minimum 20-year projected population allocation under the current (2002)UGA configuration.

The shortfall is due to several reasons. Chief among them is the new UGA increased population allocation adopted in 2003 (after the UGA was originally adopted in 2002 based on the previous and smaller projected 20-year population increase). Secondly the original 2002 UGA Preliminary Zoning Map included almost no new multi family residential zoning. Since the General Sewer Plan and other capital facility planning activities for the UGA (including transportation and storm water plans) were not yet initiated, it was premature to evaluate the adequacy of additional parcels for higher density residential development at that time.

³ Based on Year 2000 Census figure for Port Hadlock CDP

⁴ 28 Acres (see Table 1 [MF land supply])

⁵ Estimate

Scenario II

(Suggested 2004 Internal Revisions to UGA from UGA Task Force)

This analysis is based on the same external UGA boundary adopted in year 2002 but includes suggested revisions by the UGA Task Force to the internal land use designations originally adopted in year 2002. Revised acreage assumptions are footnoted.

Single Family Designation

Step One

Single Family Acres (584⁶) - Development Reduction Factor (0.325) = 394 Acres

Step Two

Single Family Net Acres (394) X Maximum Density (3.5 units/acre) = 1,379 Units

Step Three

Single Family Dwelling Units (1,379) X Average Household Size (2.5) = 3,448 Persons

Multi Family Designation

Step Four

Multi Family (MF) Total Acres (93⁷)

- (48) Acres MF @ Moderate Density [14 units/acre] - Development Reduction Factor (0.325) = 32 Acres
- (45) Acres MF @ High Density [24 units/acre] - Development Reduction Factor (0.325) = 30 Acres

Step Five

MF Moderate Density Net Acres (32) X Maximum Density (14 units/acre) = 448 Units

MF High Density Net Acres (30) X Maximum Density (24 units/acre) = 720 Units

⁶ 665 acres minus 81 acres = 584 Acres. 81 acre changes as follows: 55 acres SF redesignated to MF (Ness Corner Road Corridor); 10 acres SF redesignated to MF (Blanche Avenue); 3 acres SF redesignated to Village Commercial (Chimacum Road); and 13 acres SF redesignated to Village Commercial (Curtiss Street).

⁷ 28 acres plus 55 acres (former SF parcels along Ness Corner Road Corridor) plus 10 acres (former SF parcels along Blanche Avenue) = 93 acres.

Step Six

Multi Family Dwelling Units (1,168) X Average Household Size (2.0) = 2,336 Persons

Step Seven

Single Family Pop. Capacity (3,448) + Multi Family Pop. Capacity (2,336) =
Total UGA Residential Population Capacity (5,784 Persons)

The Scenario II analysis indicates a theoretical maximum population capacity 18% larger than the new minimum 20-year projected total UGA population allocation (5,784 - 4,906 = +878) assuming the current UGA boundary configuration with UGA Task Force suggested internal land use designation changes as noted.

This scenario results in additional population capacity within the UGA based on designation of new areas for multi family residential and commercial development (originally designated as single family residential on the 2002 UGA Preliminary Zoning Map). It also reflects the sanitary sewer, storm water and transportation related capital facility planning necessary to support those increased urban densities and intensities of use.

Summary

The Growth Management Hearings Boards have ruled in many cases that one of the “tests” of UGA compliance under the GMA is the ability to achieve a net density of four (4) dwelling units per acre over the entire UGA. Meaning that while areas with allowed densities of less than four units per acre may be allowed (usually due to the need for critical area protection or infrastructure constraints) the overall UGA must still meet the “bright line” threshold of four units per acre. The following analysis demonstrates how the UGA meets this standard.

Scenario I

Total Residential (SF + MF) Unit Capacity (2,028) / Total Net Residential (SF + MF)
Zone Acres (468) = 4.33 Units/Acre

Scenario II

Total Residential (SF + MF) Unit Capacity (2,547) / Total Net Residential (SF + MF)
Zone Acres (456) = 5.59 Units/Acre

The population demand side of the capacity analysis is shown below based on the updated 2003 adopted 20-year population growth allocation for the Irondale & Port Hadlock UGA.

- A. Existing (2000)UGA Population= 2,553
- B. 20-year (2004-2024) UGA Population Allocation= 2,353
- C. 20-year (2024) Adopted Total Target Population= 4,906 [A + B]

The summary totals of the (land supply) buildout analysis under each UGA scenario are shown in Table 2.

Table 2
Irondale & Port Hadlock UGA
Buildout Scenario Matrix

	Scenario I ⁸	Scenario II ⁹
Total Single Family Dwelling Units	1,572	1,379
Total Multi Family Dwelling Units	456	1,168
Total Dwelling Units	2,028	2,547
Single Family Population Capacity (@ ave. 3.5 du/acre)	3,930	3,448
Multi Family Population Capacity (@ 14-24 du/acre)	912	2,336
Total Population Capacity	4,842	5,784
Total Population Capacity as Percent of 20-Year Allocated Growth	99%	118%
Average Net Density (Units/Acre)	4.33	5.59

⁸ **Scenario I**
(Existing 2002 UGA)

This analysis is based on the existing UGA boundary and land use designations adopted in year 2002 compared to the updated 2003 20-year population growth allocation for the UGA.

⁹ **Scenario II**
(Suggested 2004 Internal Revisions from UGA Task Force)

This analysis is based on the same external UGA boundary adopted in year 2002 but includes suggested revisions by the UGA Task Force to the internal land use designations originally adopted in year 2002.